

Wherefore, having thus described the present invention, what is claimed is:

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- 5 1. A process of encoding frames of a panoramic video so as to allow selective decoding of the frames, comprising the process actions of:
- segmenting each frame of the panoramic video into plural corresponding regions; and
- separately encoding each region of the panoramic video frames.
- 10 2. The process of Claim 1, wherein the process action of segmenting each frame of the panoramic video comprises an action of employing an identical segmentation pattern for each frame of the panoramic video.
- 15 3. The process of Claim 1, further comprising the action of decoding only those encoded regions of each panoramic video frame needed to display a prescribed portion of the scene depicted by each frame.
- 20 4. The process of Claim 1, wherein the process action of separately encoding each region further comprises the process action of separately compressing each region of the panoramic video frames.
- 25 5. The process action of Claim 1, further comprising the process actions of:
- for each frame of a panoramic video
- obtaining information as to what portion of a scene depicted by the frame under consideration a user wants to view;
- sending only those frame regions associated with the video frame that are needed by a panoramic video viewer to provide the portion of the scene the user wants to view.
- 30 6. The process of Claim 1, wherein the process action of encoding the frame regions of the panoramic video comprises the action of creating at least one

data file comprising the data associated with each frame region of each frame of the panoramic video and an indicator associated with the data of each frame region that identifies its corresponding panoramic video frame and its location within that frame.

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r2 7. The process of Claim 6, wherein the process action of creating the at least one data file further comprises an action of creating a separate data file for each frame region of the panoramic video.

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8. The process of Claim 6, wherein the process action of creating the at least one data file further comprises an action of creating a separate data file for each series of correspondingly located frame regions of the panoramic video.

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9. The process of Claim 6, wherein the process action of creating the at least one data file comprises an action of creating a single data file comprising the data and indicators associated with each frame region of the panoramic video.

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10. The process of Claim 6, further comprising a process action of sending the at least one data file from a server over a network to a panoramic video viewer resident on a client.

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11. The process of Claim 10, wherein a user viewing a panoramic video on the panoramic video viewer views only a portion of the scene captured by each frame of the panoramic video, and wherein the viewer identifies what portion of the scene the user wants to view, and where the process action of sending the at least one data file over the network comprises an action of sending all of the data files so as to provide every frame region of every panoramic video frame to the viewer.

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12. The process of Claim 10, wherein there is two-way communication between the server and the client.

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13. The process action of Claim 12, wherein a user viewing a panoramic video on the panoramic video viewer views only a portion of the scene captured by each frame of the panoramic video, and wherein the viewer identifies what portion of the scene the user wants to view, and wherein the viewer employs said two-way communication link to the server to request only those frame regions of each panoramic video frame needed to provide the desired view to the user and wherein the process action of creating the at least one data file comprises an action of including only the data and associated indicators corresponding to those frame regions requested by the viewer in the at least one data file sent to the viewer.

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14. The process of Claim 6, further comprises the process action of storing the at least one data file on a storage medium accessible by a panoramic video viewer.

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15. The process action of Claim 14, wherein a user viewing a panoramic video on the panoramic video viewer views only a portion of the scene captured by each frame of the panoramic video, and wherein the viewer identifies what portion of the scene the user wants to view, and further comprising the process action of the viewer reading only the elements of the at least one data file corresponding to those frame regions needed to produce the portion of the scene the user wants to view on a frame by frame basis.

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16. A system for encoding frames of a panoramic video so as to allow selective decoding of the frames comprising:

- at least one general purpose computing device; and
- a computer program comprising program modules executable by the at least one computing device, wherein the at least one computing device is directed by the program modules of the computer program to,
  - segment each frame of the panoramic video into plural corresponding frame segments; and

separately encode each frame segment of the panoramic video frames, wherein said encoding comprises compressing a series of said corresponding frame segments.

5           17.    A computer-readable medium having computer-executable instructions for encoding frames of a panoramic video so as to allow selective decoding of the frames, said computer-executable instructions comprising:

                  segmenting each frame of the panoramic video into plural corresponding frame segments; and

10                   separately encoding each frame segment of the panoramic video frames.

                  18.    A process of encoding images so as to allow for selective decoding of portions of the image, comprising the process actions of:

15                   segmenting the image into plural corresponding segments; and encoding each image segment separately.

                  19.    The process of Claim 18, further comprising the action of decoding only those encoded segments of the image needed to display a prescribed portion of the scene depicted by the image.

                  20.    The process of Claim 18, wherein the process action of separately encoding each segment further comprises the process action of separately compressing each segment of the image.

25           21.    The process action of Claim 18, further comprising the process actions of:

                  obtaining information as to what portion of a scene depicted by the image a user wants to view;

30                   sending only those image segments that are needed by an image viewer to provide the portion of the scene the user wants to view.

22. The process of Claim 18, wherein the process action of encoding the image segments of the image comprises the action of creating at least one data file comprising the data associated with each image segment and an indicator associated with the data of each image segment that its location within that frame.

5 Sub 23. The process of Claim 22, wherein the process action of creating at least one data file further comprises an action of creating a separate data file for each image segment of the image.

10 Sub 24. The process of Claim 23, wherein the process action of creating at least one data file comprises an action of creating a single data file comprising the data and indicators associated with each image segment of the image.

15 25. The process of Claim 23, further comprising a process action of sending the at least one data file from a server over a network to an image viewer resident on a client.

20 26. The process of Claim 25, wherein a user viewing an image on the image viewer views only a portion of the scene captured by the image, and wherein the viewer identifies what portion of the scene the user wants to view, and where the process action of sending the at least one data file over the network comprises an action of sending all of the data files so as to provide every image segment to the viewer.

25 27. The process of Claim 26, wherein there is two-way communication between the server and the client.

30 28. The process action of Claim 27, wherein a user viewing an image on the image viewer views only a portion of the scene captured by the image, and wherein the viewer identifies what portion of the scene the user wants to view, and wherein the viewer employs said two-way communication link to the server to request only those image segments needed to provided the desired view to the

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user and wherein the process action of creating the at least one data file comprises an action of including only the data and associated indicators corresponding to those image segments requested by the viewer in the at least one data file sent to the viewer.

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29. The process of Claim 22, further comprises the process action of storing the at least one data file on a storage medium accessible by an image viewer.

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30. The process action of Claim 29, wherein a user viewing an image on the image viewer views only a portion of the scene captured by the image, and wherein the viewer identifies what portion of the scene the user wants to view, and further comprising the process action of the viewer reading only the elements of the at least one data file corresponding to those image segments needed to produce the portion of the scene the user wants to view.

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